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MEMO: Mr. Loomis

August 3, 1964

IBS/E - Edgar T. Martin

Medium Wave Broadcasting to Cuba

In accordance with your request of August 2, we have made a comparative study of various locations in the Caribbean area for broadcasting to Cuba. The study is based on the following assumptions:

1. Transmitter power is 1,000 KW medium wave, using a directional antenna with a gain of at least 3 db in the direction of the target.
2. The North American Regional Broadcasting Agreement (NARBA), to which the United States is a signatory nation, will be abrogated.
3. The transmitter will be located outside the territorial limits of the continental United States.
4. The Federal Communications Commission (FCC) will take necessary domestic action, and the Department of State necessary international action, to acquire a clear channel for the station. (The coverage maps shown in this report are based on clear channel operation.)
5. The Cuban Government will not jam, or otherwise interfere with the transmissions.

The technical factors considered in comparing nine different potential locations for the transmitter are as follows:

- (1) Program feed from the U. S. (relative ease or difficulty in providing live program material to the transmitter from U.S. sources.)

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- (2) Skywave (nighttime) signal coverage of Cuba. (Signal coverage calculations are based on FCC skywave curves, increased by a factor of 4 db to take into account geomagnetic conditions in the Caribbean area.)
- (3) Groundwave signal coverage of Cuba. (Signal coverage based on FCC curves.)
- (4) Fading zone effects in Cuba (potential distortion and severe fading as a result of interaction of skywave and groundwave signals during the nighttime hours.)

Interference to or from radio stations in the U.S., or other adjacent countries, has not been considered since the assumption is made that the proposed station will operate on a clear channel.

The locations chosen for comparison are as follows, (where several locations are lumped together, the technical suitability, propagation-wise, is considered to be essentially the same for each location):

- (1) Gr. Abaco Island, Grand Bahama Island, and other nearby islands in Bahamas.
- (2) Nassau.
- (3) Navassa Island.
- (4) Puerto Rico.
- (5) Dominican Republic.
- (6) Swan Island.
- (7) British Honduras.

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(8) Nicaragua/Honduras (on the sea coast near border of the two countries.)

(9) Cayman Island.

The attached chart shows the relative comparison between the various locations, considering the various technical factors as aforementioned.

Attachment:

Chart

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	Weighting Factor	Nassau	Dominican Republic	Cayman Island	Norfolk Island	Nicaragua/Honduras	Bermuda Island	British Honduras	Qs. Abaco/Grand Bahama Island	Puerto Rico	Venezuela
1. Program sent from U.S.	5	5	4	4	4	4	4	4	3	5	4
2. Skywave, nighttime signal in Cuba	10	4	4	5	5	3	4	3	4	2	2
3. Fading zone effects in Cuba	-8	3	2	5	5	2	4	2	4	1	1
4. Groundwave, daytime signal in Cuba	5	4	3	5	4	3	4	2	4	1	1
Total		61	59	55	50	49	48	44	43	42	37

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